REMARKS

The Claim Amendments

Claim 18 has been amended to improve its form.

Claim 27 has been amended to recite a method of treating a cancer selected from colon cancer, kidney carcinoma, lung cancer, melanoma, ovarian cancer, pancreatic cancer, or prostate cancer. Support for this amendment is found in the specification on page 45, line 10, to page 46, line 13 and in the claims as originally filed.

Claims 28, 30, 33, 35, 37, and 38 have been canceled.

None of the amendments contains new matter. Their entry is requested.

The Response

Rejection under 35 U.S.C. § 112, first paragraph

The Examiner has rejected claims 27, 28, 30, 33, 35, 37, and 38 under 35 U.S.C. § 112, first paragraph, for allegedly lacking enablement. In particular, the Examiner asserts that there are no working examples present for the treatment of any specific disease or disorder and that the treatment of the diseases or disorders recited by the instant claims are not enabled based on *in vitro* data reported in the specification. Applicants traverse in part.

In order to expedite prosecution, claims 28, 30, 33, 35, 37, and 38 have been canceled. Amended claim 27 recites a method of treating a cancer selected from colon cancer, kidney carcinoma, lung cancer, melanoma, ovarian cancer, pancreatic cancer, or prostate cancer. In the Request for Continued Examination filed on January 25, 2007, applicants presented evidence that a link between ERK kinase activity and various cancers had been established at the time of the invention. See the argument presented therein relating to Hoshino et al., *Oncogene* 18: 813-22, 1999; Kortylewski et al., *Biochem. J.* 357(Pt 1): 297-303, 2001; and Putz et al., *Cancer Res.* 59(1): 227-33, 1999. These references clearly show that there is a reasonable correlation between the activation of ERK in various cancers, the use of an ERK inhibitor to inhibit cancer cell growth, and the use of the ERK inhibitors of the invention to treat the cancers recited in claim 27. Further, for the treatment of the various cancers discussed above, a skilled artisan would be able to discern an appropriate dosage and method of use based upon the information provided in the specification (see page 48, line 4, to page 52, line 5) along with the general knowledge of one skilled in the art. Accordingly, one

skilled in the art would find it reasonable to use the ERK/AKT3 inhibitors of the present invention for the treatment of the recited diseases without undue experimentation.

The Examiner has not met the initial burden of establishing a reasonable basis to question the enablement provided for the claimed invention. A specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. § 112, first paragraph, unless there is a reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support [emphasis added]. See *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). As stated by the court, "it is incumbent upon the Patent Office, whenever a rejection on this basis is made, to explain why it doubts the truth or accuracy of any statement in a supporting disclosure and to back up assertions of its own with acceptable evidence or reasoning which is inconsistent with the contested statement." See the Manual of Patent Examination Procedure (MPEP) § 2164.04.

The Examiner cites *Hoffman v. Klaus*, 9 U.S.P.Q.2d, 1657, and *Ex parte Powers*, 220 U.S.P.Q. 925, regarding the standard of testing that is necessary to establish the likelihood of *in vivo* use. However, the Examiner has not offered evidence that is inconsistent with applicants' argument that the *in vitro* data presented correlates to an *in vivo* use of the compounds of the invention for the treatment of various cancers. As stated in MPEP § 2164.02: "'[c]orrelation' refers to the relationship between *in vitro* or *in vivo* animal model assays and a disclosed or a claimed method of use. An *in vitro* or *in vivo* animal model example in the specification, in effect, constitutes a 'working example' if that example 'correlates' with a disclosed or claimed method invention.....In this regard, the issue of 'correlation' is also dependent on the state of the prior art. In other words, if the art is such that a particular model is recognized as correlating to a specific condition, then it should be accepted as correlating unless the examiner has evidence that the model does not correlate [emphasis added]. Even with such evidence, the examiner must weigh the evidence for and against correlation and decide whether one skilled in the art would accept the model as reasonably correlating to the condition. *In re Brana*, 51 F.3d 1560, 1566, 34 USPQ2d 1436, 1441 (Fed. Cir. 1995) (reversing the PTO decision based on finding that *in vitro* data did not support *in vivo* applications)." The Examiner has characterized the evidence presented by

applicants as "speculative." Such a characterization does not meet the Examiner's burden of showing a lack of correlation between *in vitro* behavior of the compounds of the invention and the therapeutic method recited by amended claim 27 in the instant application.

The Examiner also cites *In re Ruskin*, 148 USPQ 221 (CCPA 1966, hereafter "Ruskin"), and *Ex parte Jovanovics*, 221 USPQ 907 (Bd. Pat. App. Int. 1981, hereafter "Jovanovics"), as supporting the proposition that "[w]here the utility is unusual or difficult to treat or speculative, the examiner has the authority to require evidence that tests relied on are reasonably predictive of *in vivo* efficacy by those skilled in the art." However, neither Ruskin nor Jovanovics relates to the circumstance discussed above. In Ruskin, the court found the application at issue was devoid of quantitative data. In Jovanovics, the Board reversed the Examiner's rejection of claims for which data were presented and upheld the Examiner's rejection only of claims for which no data of record existed. As discussed above, applicants have shown that there is a reasonable correlation between the activation of ERK in various cancers, the use of an ERK inhibitor to inhibit cancer cell growth, and the use of the ERK inhibitors of the invention to treat the cancers recited in amended claim 27.

For all of the reasons set forth above, applicants respectfully request that the Examiner withdraw her rejection of claim 27 over 35 U.S.C. § 112, first paragraph.

Conclusion

Applicants request that the Examiner enter the above amendments, consider the matters taken up in the remarks, and allow the claims to pass to issue. Should the Examiner deem expedient a telephone discussion to further the prosecution of the above application, Applicants request that the Examiner contact the undersigned.

Respectfully submitted,

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